

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-003618**Date Inspected:** 18-Aug-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1400**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2300**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai China

CWI Name:	Yu Dong Ping		
Inspected CWI report:	Yes	No	N/A
Electrode to specification:	Yes	No	N/A
Qualified Welders:	Yes	No	N/A
Approved Drawings:	Yes	No	N/A

CWI Present:	Yes	No
Rod Oven in Use:	Yes	No N/A
Weld Procedures Followed:	Yes	No N/A
Verified Joint Fit-up:	Yes	No N/A
Approved WPS:	Yes	No N/A
Delayed / Cancelled:	Yes	No N/A
Component:	OBG	

Bridge No: 34-0006**Summary of Items Observed:****Bay 3**

This Quality Assurance (QA) inspector arrived at ZPMC in Shanghai China for observation of Orthotropic Bridge Girders (OBG) and Self Anchored Suspension (SAS) Bridge. During this QA inspector's observation in bay 3 it was noted that ZPMC was in process for fit-up at multiple stages on side and bottom plates. . ZPMC Certified Welding Inspector Wu Ming Kai was present at the time of observation and this QA inspector spoke with Mr. Kai on the work in process for bay 3. It was stated that tack welding for side, bottom and edge plates were in different stages of fit up. Component numbers DP516-001 and DP513-001 stiffeners being fit to bottom plates with tack welds in process under WPS-B-T-4112-4 by welder Liu Xuanxuan using the Shielded Metal Arc Welding (SMAW) process. Also noted at the gantry's in this bay was DP625-001 (gantry-2) and DP724-001 (gantry-1) a 9.6 mm fillet welds using the Flux Cored Arc Welding (FCAW) was observed for the above location being utilized by ZPMC welders. The CWI was monitoring the welding parameters and in process welding throughout this bay assisted by ZPMC Quality Control personnel.

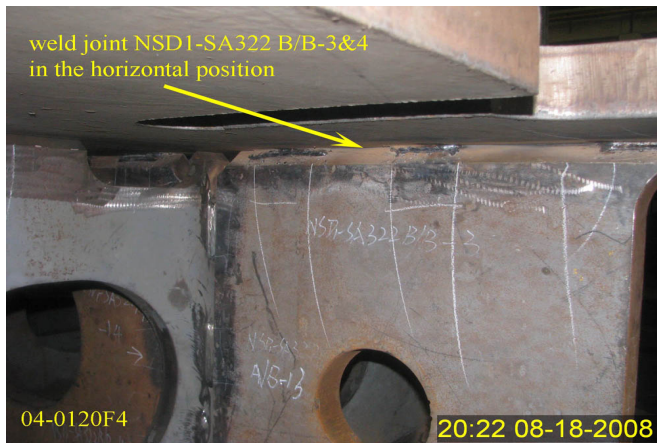
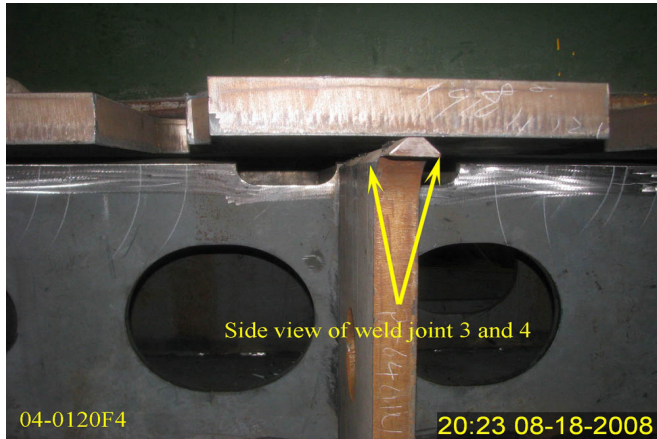
Bay 4

During the continued observation by this QA inspector it was noted in bay 4 that ZPMC was using the heat straightening process for deck plates number DP631-A under procedure number HSR1(B)-1993 and DP725-A under procedure number HSR1 (B)-1997 which had a maximum heat input for straightening of 650°C. This process was being monitored and documented by ZPMC Quality Control staff under CWI Wu Ming Kai. This QA inspector also observed ZPMC welding on tower component SSD1-SA333-B/B-9 A/B. There were total of 4 ZPMC welding personnel at this location using the SMAW process with welding electrode E9018-H4R. Welding parameters and heat temperatures were being monitored by ZPMC's CWI Yu Dong Ping. The following discrepancy was noted in this bay that was being monitored by ABF personnel and ZPMC CWI Yu Dong Ping on

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the tower for component number NSD1-SA322-B/B-3 & 4 in the horizontal position with a welder that was qualified only in the 4G overhead position. This QA inspector notified ZPMC QC Xu Jun (Erick) who stated that he would write an internal NCR (non-conformance report) for this issue. After ZPMC was informed of this discrepancy the welder Bai Jinhu was allowed by Mr. Xu Jun to perform welding again in the same position and weld joint. This QA inspector then addressed the issue again with Mr. Jun and stated that the welder was not qualified for welding in the 2G position at this point Mr. Jun stopped the welder from proceeding further. ABF representative Zhang Hui Long was present for the welding and was monitoring ZPMC's progress. This was a direct violation of AWS D1.5 section 5.22.1 table 5.6. A TL-15 was generated for this incident.



Summary of Conversations:

As stated above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Ady Velasco , 1-381-694-2685, who represents the Office of Structural Materials for your project.

Inspected By: Riley,Ken

Quality Assurance Inspector

Reviewed By: Carreon,Albert

QA Reviewer